J R Gair

List of Publications by Year
in descending order

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82 papers	10,832 citations	66343 42 h-index	69250 77 g-index
82 all docs	82 docs citations	82 times ranked	5959 citing authors

#	Article	IF	Citations
1	Advanced LIGO. Classical and Quantum Gravity, 2015, 32, 074001.	4.0	1,929
2	The Einstein Telescope: a third-generation gravitational wave observatory. Classical and Quantum Gravity, 2010, 27, 194002.	4.0	1,211
3	Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. Living Reviews in Relativity, 2018, 21, 3.	26.7	808
4	Parameter estimation for compact binaries with ground-based gravitational-wave observations using the LALInference software library. Physical Review D, 2015, 91, .	4.7	674
5	Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. Living Reviews in Relativity, 2020, 23, 3.	26.7	447
6	Intermediate and extreme mass-ratio inspiralsâ€"astrophysics, science applications and detection using LISA. Classical and Quantum Gravity, 2007, 24, R113-R169.	4.0	382
7	European Pulsar Timing Array limits on an isotropic stochastic gravitational-wave background. Monthly Notices of the Royal Astronomical Society, 2015, 453, 2577-2599.	4.4	380
8	Scientific objectives of Einstein Telescope. Classical and Quantum Gravity, 2012, 29, 124013.	4.0	355
9	Science with the space-based interferometer LISA. V. Extreme mass-ratio inspirals. Physical Review D, 2017, 95, .	4.7	344
10	Science with the space-based interferometer eLISA: Supermassive black hole binaries. Physical Review D, 2016, 93, .	4.7	321
11	Characterization of transient noise in Advanced LIGO relevant to gravitational wave signal GW150914. Classical and Quantum Gravity, 2016, 33, 134001.	4.0	225
12	Extracting distribution parameters from multiple uncertain observations with selection biases. Monthly Notices of the Royal Astronomical Society, 2019, 486, 1086-1093.	4.4	217
13	Testing General Relativity with Low-Frequency, Space-Based Gravitational-Wave Detectors. Living Reviews in Relativity, 2013, 16, 7.	26.7	215
14	Event rate estimates for LISA extreme mass ratio capture sources. Classical and Quantum Gravity, 2004, 21, S1595-S1606.	4.0	184
15	The International Pulsar Timing Array second data release: Search for an isotropic gravitational wave background. Monthly Notices of the Royal Astronomical Society, 2022, 510, 4873-4887.	4.4	174
16	â€œKludgeâ€•gravitational waveforms for a test-body orbiting a Kerr black hole. Physical Review D, 2007, 75, .	4.7	151
17	A Standard Siren Measurement of the Hubble Constant from GW170817 without the Electromagnetic Counterpart. Astrophysical Journal Letters, 2019, 871, L13.	8.3	145
18	A Gravitational-wave Measurement of the Hubble Constant Following the Second Observing Run of Advanced LIGO and Virgo. Astrophysical Journal, 2021, 909, 218.	4.5	144

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19	Cosmology with the lights off: Standard sirens in the Einstein Telescope era. Physical Review D, 2012, 86, .	4.7	133
20	Cosmology using advanced gravitational-wave detectors alone. Physical Review D, 2012, 85, .	4.7	127
21	Reconstructing the massive black hole cosmic history through gravitational waves. Physical Review D, 2011, 83, .	4.7	110
22	Eccentric, nonspinning, inspiral, Gaussian-process merger approximant for the detection and characterization of eccentric binary black hole mergers. Physical Review D, 2018, 97, .	4.7	100
23	Cosmological inference using gravitational wave standard sirens: A mock data analysis. Physical Review D, 2020, 101, .	4.7	95
24	Improved approximate inspirals of test bodies into Kerr black holes. Physical Review D, 2006, 73, .	4.7	94
25	Massive black-hole binary inspirals: results from the LISA parameter estimation taskforce. Classical and Quantum Gravity, 2009, 26, 094027.	4.0	93
26	Quantifying fish and mobile invertebrate production from a threatened nursery habitat. Journal of Applied Ecology, 2016, 53, 596-606.	4.0	90
27	The Mock LISA Data Challenges: from challenge 3 to challenge 4. Classical and Quantum Gravity, 2010, 27, 084009.	4.0	83
28	Exploring intermediate and massive black-hole binaries with the Einstein Telescope. General Relativity and Gravitation, 2011, 43, 485-518.	2.0	77
29	Augmented kludge waveforms for detecting extreme-mass-ratio inspirals. Physical Review D, 2017, 96, .	4.7	75
30	Gravitational-wave parameter estimation with autoregressive neural network flows. Physical Review D, 2020, 102, .	4.7	74
31	The basic physics of the binary black hole merger GW150914. Annalen Der Physik, 2017, 529, 1600209.	2.4	69
32	LISA extreme-mass-ratio inspiral events as probes of the black hole mass function. Physical Review D, 2010, 81, .	4.7	68
33	The Mock LISA Data Challenges: from Challenge 1B to Challenge 3. Classical and Quantum Gravity, 2008, 25, 184026.	4.0	64
34	Real-Time Gravitational Wave Science with Neural Posterior Estimation. Physical Review Letters, 2021, 127, 241103.	7.8	61
35	Gravitational wave parameter estimation with compressed likelihood evaluations. Physical Review D, 2013, 87, .	4.7	52
36	Reconstructing the sky location of gravitational-wave detected compact binary systems: Methodology for testing and comparison. Physical Review D, 2014, 89, .	4.7	50

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37	Probing black holes at low redshift using LISA EMRI observations. Classical and Quantum Gravity, 2009, 26, 094034.	4.0	49
38	Graviton mass bounds from space-based gravitational-wave observations of massive black hole populations. Physical Review D, 2011, 84, .	4.7	48
39	On the importance of source population models for gravitational-wave cosmology. Physical Review D, 2021, 104, .	4.7	48
40	Limits on Anisotropy in the Nanohertz Stochastic Gravitational Wave Background. Physical Review Letters, 2015, 115, 041101.	7.8	47
41	Importance of transient resonances in extreme-mass-ratio inspirals. Physical Review D, 2016, 94, .	4.7	46
42	Complete parameter inference for GW150914 using deep learning. Machine Learning: Science and Technology, 2021, 2, 03LT01.	5.0	46
43	Improved analytic extreme-mass-ratio inspiral model for scoping out eLISA data analysis. Classical and Quantum Gravity, 2015, 32, 232002.	4.0	42
44	An algorithm for the detection of extreme mass ratio inspirals in LISA data. Classical and Quantum Gravity, 2009, 26, 135004.	4.0	39
45	Quantifying fisheries enhancement from coastal vegetated ecosystems. Ecosystem Services, 2020, 43, 101105.	5.4	38
46	Constraining properties of the black hole population using LISA. Classical and Quantum Gravity, 2011, 28, 094018.	4.0	36
47	Verifying the no-hair property of massive compact objects with intermediate-mass-ratio inspirals in advanced gravitational-wave detectors. Physical Review D, 2012, 85, .	4.7	36
48	Fishers who rely on mangroves: Modelling and mapping the global intensity of mangrove-associated fisheries. Estuarine, Coastal and Shelf Science, 2020, 247, 106975.	2.1	35
49	Fast methods for training Gaussian processes on large datasets. Royal Society Open Science, 2016, 3, 160125.	2.4	33
50	Observing Intermediate-mass Black Holes and the Upper Stellar-mass gap with LIGO and Virgo. Astrophysical Journal, 2022, 924, 39.	4.5	32
51	<scp>stroopwafel</scp>: simulating rare outcomes from astrophysical populations, with application to gravitational-wave sources. Monthly Notices of the Royal Astronomical Society, 2019, 490, 5228-5248.	4.4	30
52	Testing the quasar Hubble diagram with LISA standard sirens. Physical Review D, 2021, 103, .	4.7	30
53	Detecting extreme mass ratio inspirals with LISA using timeâ€"frequency methods. Classical and Quantum Gravity, 2005, 22, S445-S451.	4.0	27
54	Gravitational-wave cosmology with extreme mass-ratio inspirals. Monthly Notices of the Royal Astronomical Society, 2021, 508, 4512-4531.	4.4	26

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55	Assessing the impact of transient orbital resonances. Physical Review D, 2021, 103, .	4.7	24
56	Novel Method for Incorporating Model Uncertainties into Gravitational Wave Parameter Estimates. Physical Review Letters, 2014, 113, 251101.	7.8	23
57	Astrometric effects of gravitational wave backgrounds with non-Einsteinian polarizations. Physical Review D, 2018, 97, .	4.7	21
58	High angular resolution gravitational wave astronomy. Experimental Astronomy, 2021, 51, 1441-1470.	3.7	21
59	Resonances in extreme mass-ratio inspirals: Asymptotic and hyperasymptotic analysis. Journal of Mathematical Physics, 2012, 53, .	1.1	20
60	Identifying and addressing nonstationary LISA noise. Physical Review D, 2020, 102, .	4.7	20
61	First joint observation by the underground gravitational-wave detector KAGRA with GEO 600. Progress of Theoretical and Experimental Physics, 2022, 2022, .	6.6	20
62	Estimating and Applying Fish and Invertebrate Density and Production Enhancement from Seagrass, Salt Marsh Edge, and Oyster Reef Nursery Habitats in the Gulf of Mexico. Estuaries and Coasts, 2021, 44, 1588.	2.2	19
63	Reprint of : Fishers who rely on mangroves: Modelling and mapping the global intensity of mangrove-associated fisheries. Estuarine, Coastal and Shelf Science, 2021, 248, 107159.	2.1	18
64	Noisy neighbours: inference biases from overlapping gravitational-wave signals. Monthly Notices of the Royal Astronomical Society, 2021, 507, 5069-5086.	4.4	18
65	Transition from inspiral to plunge: A complete near-extremal trajectory and associated waveform. Physical Review D, 2020, 101, .	4.7	17
66	Towards a framework for testing general relativity with extreme-mass-ratio-inspiral observations. Monthly Notices of the Royal Astronomical Society, 2018, 478, 28-40.	4.4	16
67	Quantifying and mitigating bias in inference on gravitational wave source populations. Physical Review D, 2015, 91, .	4.7	13
68	Constraining the spin parameter of near-extremal black holes using LISA. Physical Review D, 2020, 102, .	4.7	11
69	Constraining unmodeled physics with compact binary mergers from GWTC-1. Physical Review D, 2021, 103, .	4.7	10
70	Transition of EMRIs through resonance: Corrections to higher order in the on-resonance flux modification. Journal of Mathematical Physics, 2017, 58, 112501.	1.1	9
71	Strategies for the follow-up of gravitational wave transients with the Cherenkov Telescope Array. Monthly Notices of the Royal Astronomical Society, 2018, 477, 639-647.	4.4	9
72	Astrometric effects of gravitational wave backgrounds with nonluminal propagation speeds. Physical Review D, 2020, 101, .	4.7	9

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73	Mapping the inhomogeneous Universe with standard sirens: degeneracy between inhomogeneity and modified gravity theories. Monthly Notices of the Royal Astronomical Society, 2021, 503, 3179-3193.	4.4	9
74	Discriminating between different scenarios for the formation and evolution of massive black holes with LISA. Physical Review D, 2021, 104, .	4.7	7
75	Extracting Information about EMRIs using Time-Frequency Methods. AIP Conference Proceedings, 2006, , .	0.4	2
76	Seagrass valuation from fish abundance, biomass and recreational catch. Ecological Indicators, 2021, 130, 108097.	6.3	2
77	Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. , 2018, 21, 1.		2
78	A simulation study of how religious fundamentalism takes root. Journal of Economic Behavior and Organization, 2021, 192, 465-481.	2.0	2
79	Relativistic astrophysics at GR20. General Relativity and Gravitation, 2014, 46, 1.	2.0	1
80	APPROXIMATE WAVEFORM TEMPLATES FOR DETECTION OF EXTREME MASS RATIO INSPIRALS WITH LISA. , 2008, , .		0
81	DETECTING LISA SOURCES USING TIME-FREQUENCY TECHNIQUES. , 2008, , .		0
82	DETECTING COALESCENCES OF INTERMEDIATE-MASS BLACK HOLES IN GLOBULAR CLUSTERS WITH THE EINSTEIN TELESCOPE. , 2012, , .		0